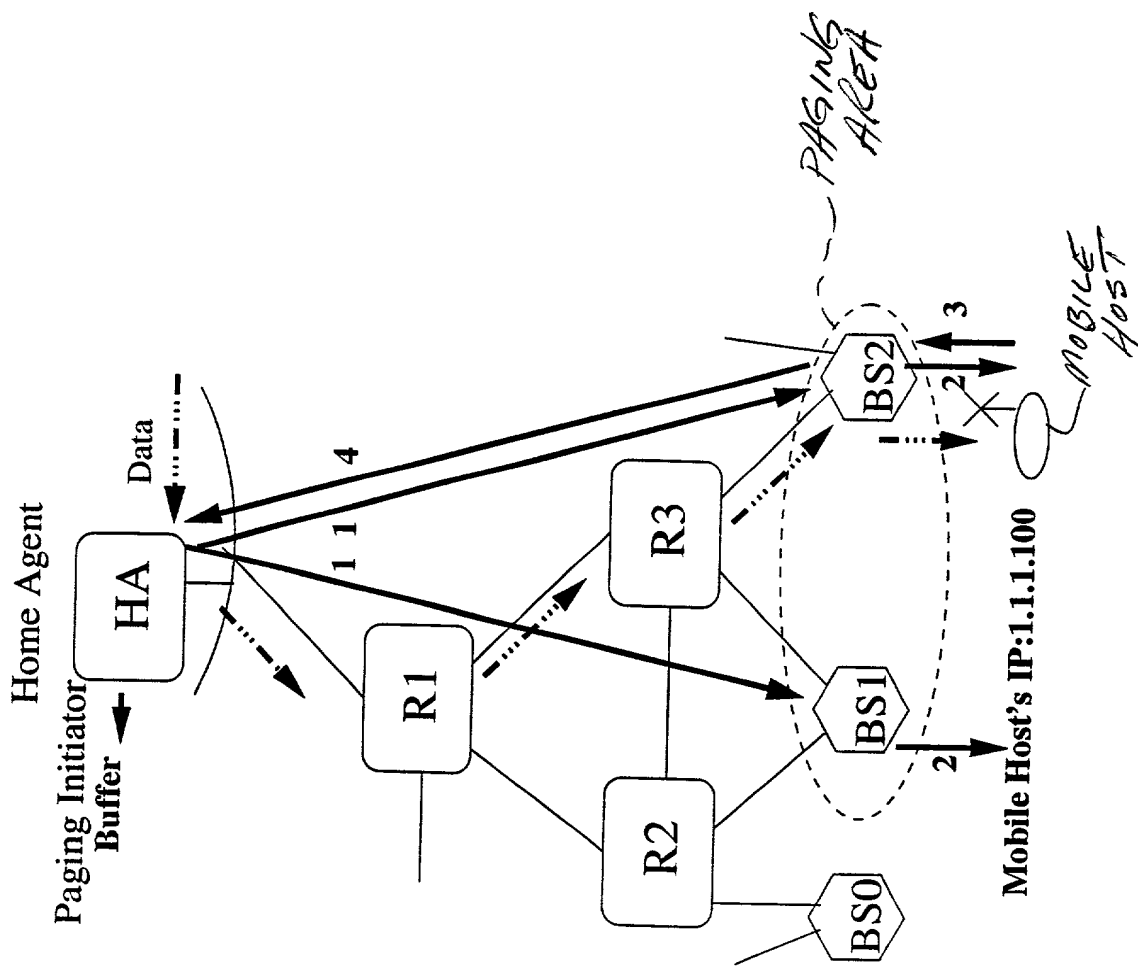
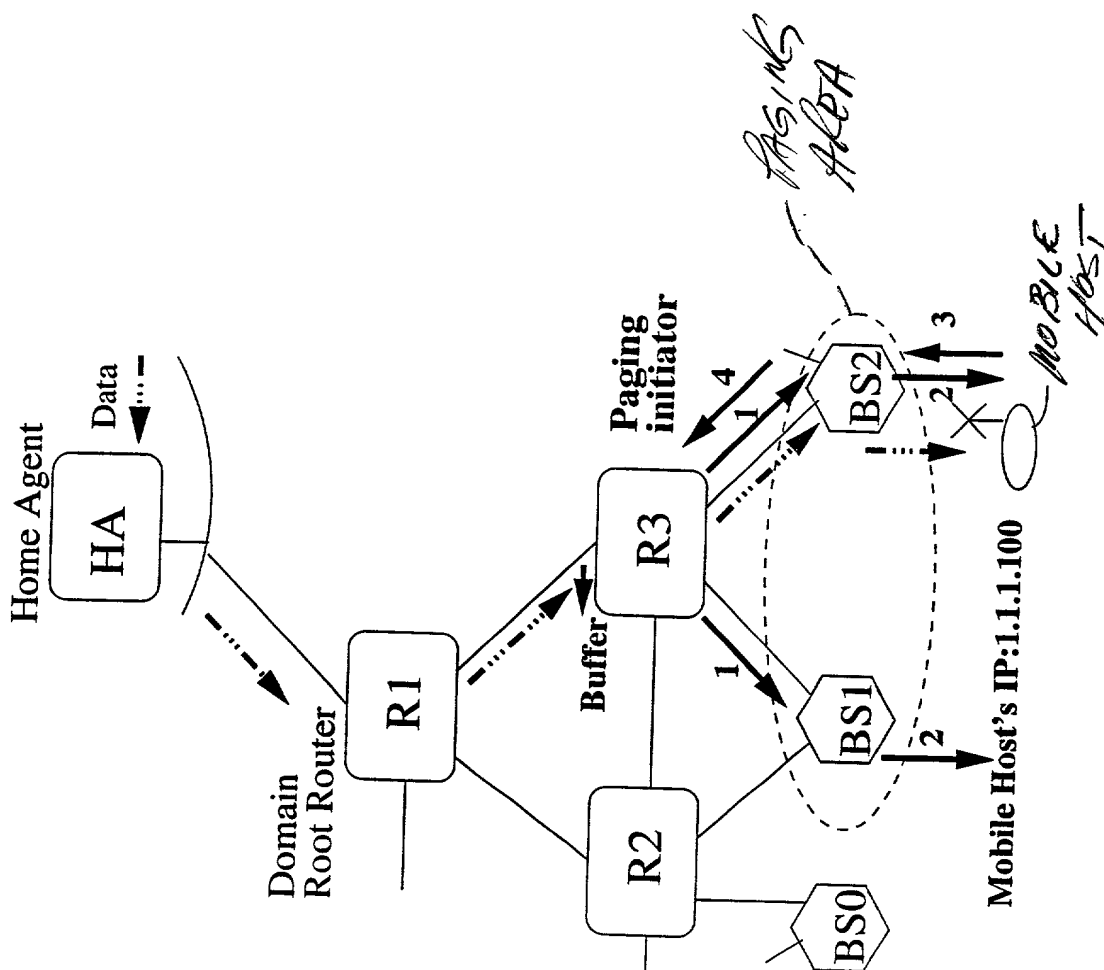
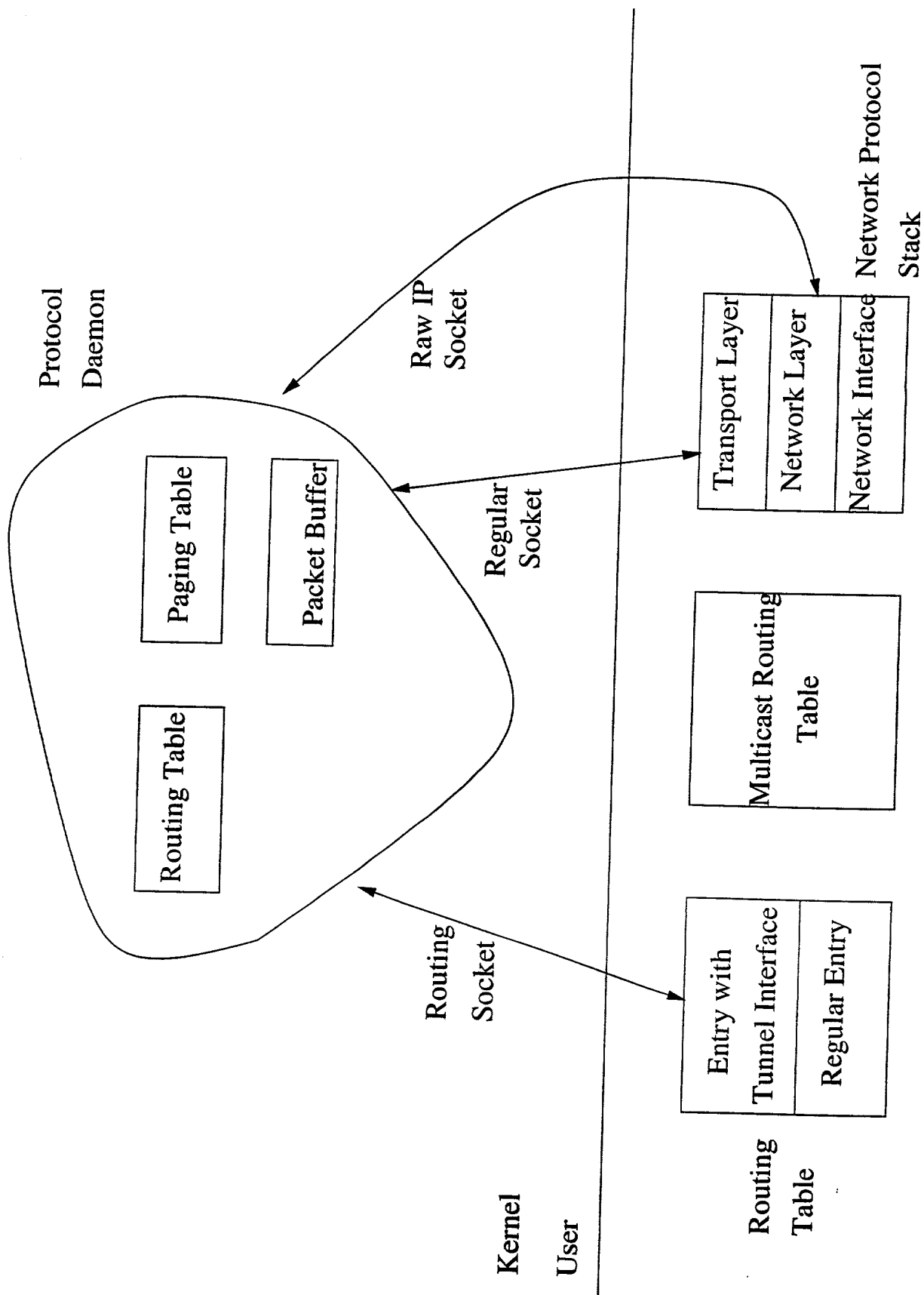


F/G. 1



F/G.2





5/6/67

TABLE I
PAGING PROCESSING TIMES IN MILLISECONDS

Router initiated (HA)		Fixed (found)	Fixed (not)	Last-loc. (found)	Last-loc. (not)	Hier. (found)	Hier. (not)
init_page_request (router)		0.173	0.173	0.323	0.316	0.196	0.203
retry_page_request(router)		-	-	-	0.157	-	0.155
recv_init_page_request(bs)		0.080	0.080	0.082	0.068	0.079	0.066
recv_page_response(bs)		0.378	0.378	0.331	0.317	0.334	0.316
recv_page_response(router)		0.279	0.279	0.190	0.193	0.204	0.215
Base station initiated (FA)							
init_page_request (bs)		0.197	0.199	0.183	0.189	0.197	0.213
retry_page_request(bs)		-	-	-	0.117	-	0.118
recv_init_page_request(bs)		0.106	0.113	-	0.114	0.106	0.114
recv_page_response(bs)		0.237	0.233	0.251	0.234	0.249	0.232
recv_page_response(router)		-	0.429	-	0.413	-	0.428

Fig. 6

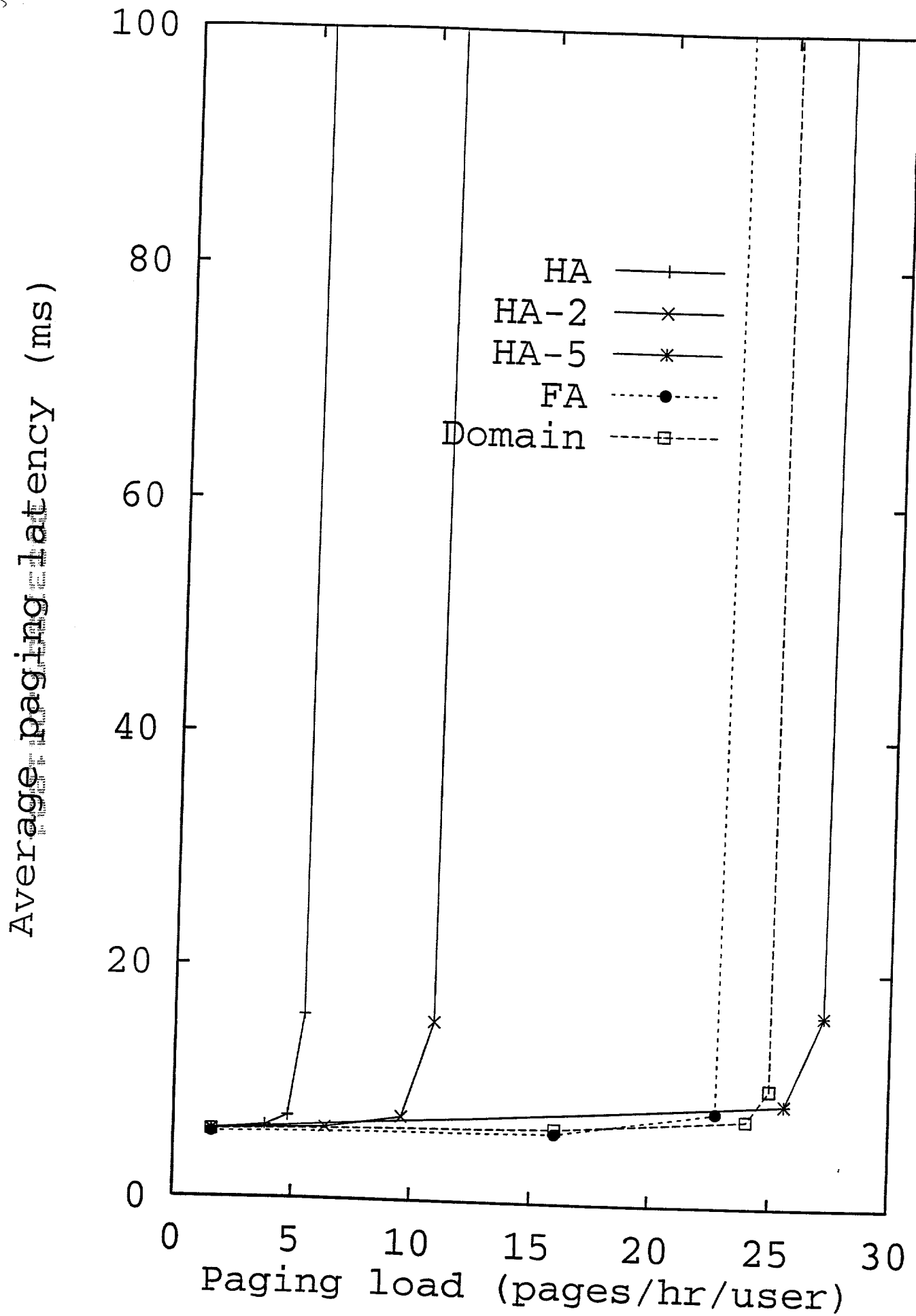


FIG. 7(a)

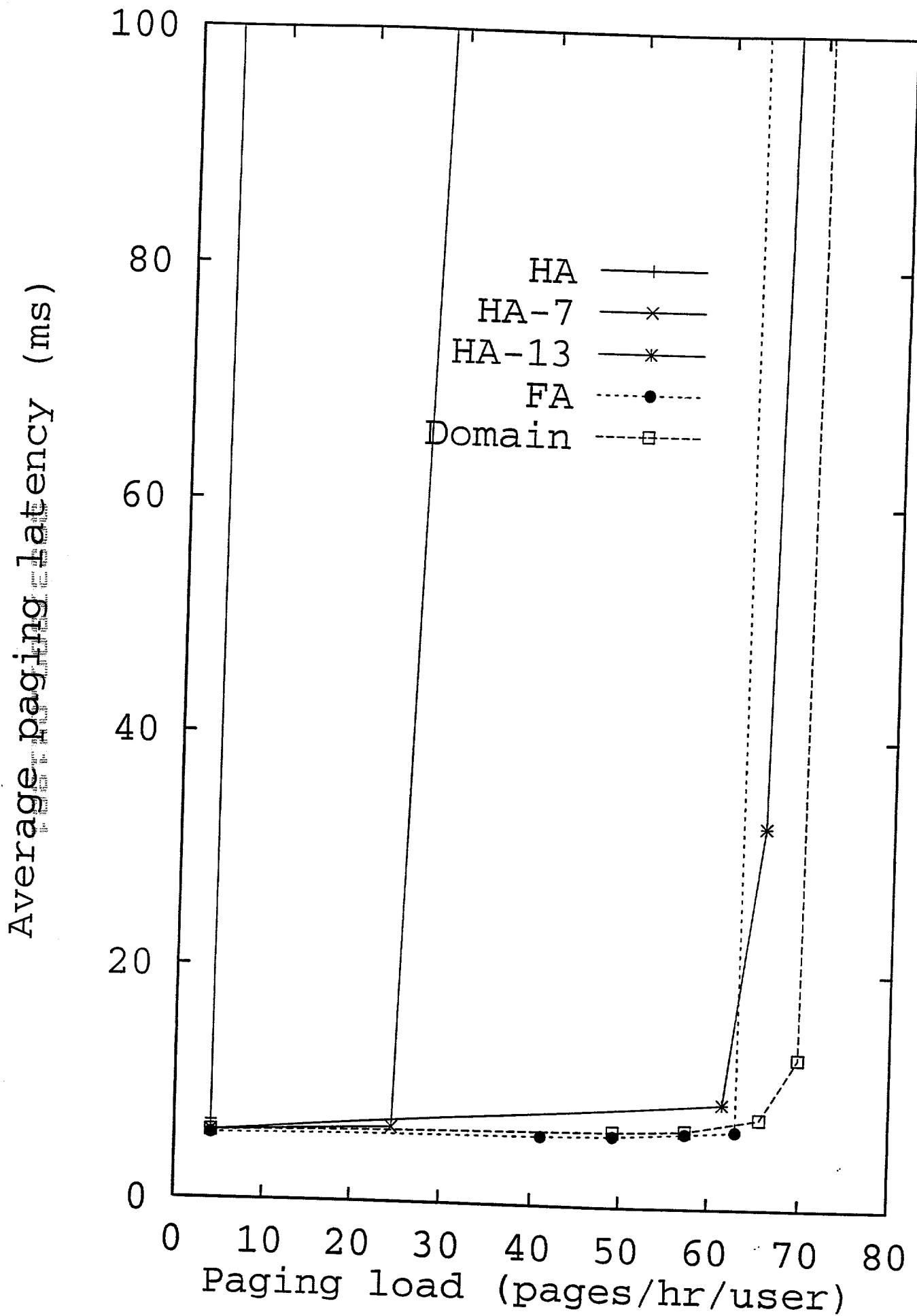


FIG. 7 (b)

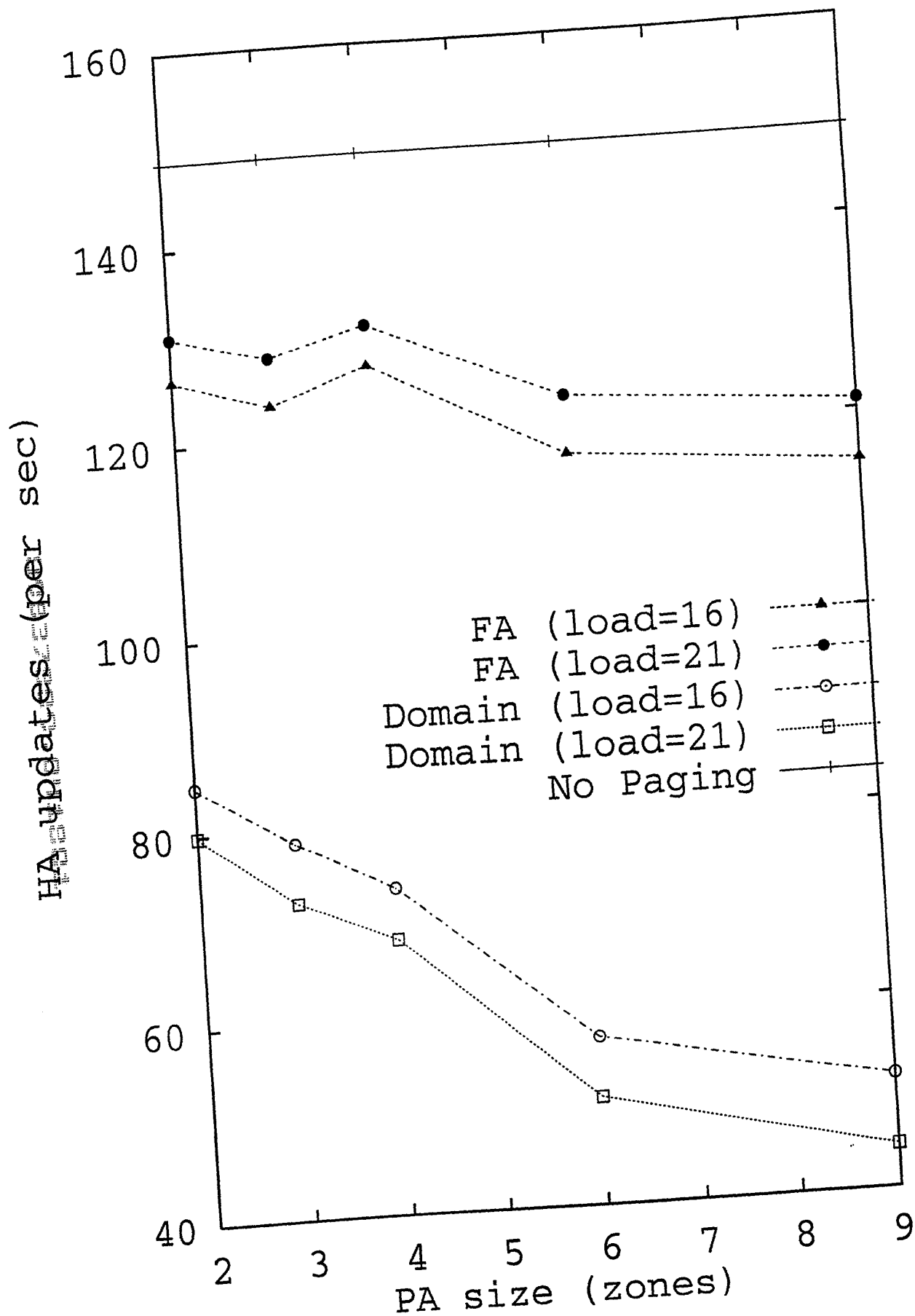
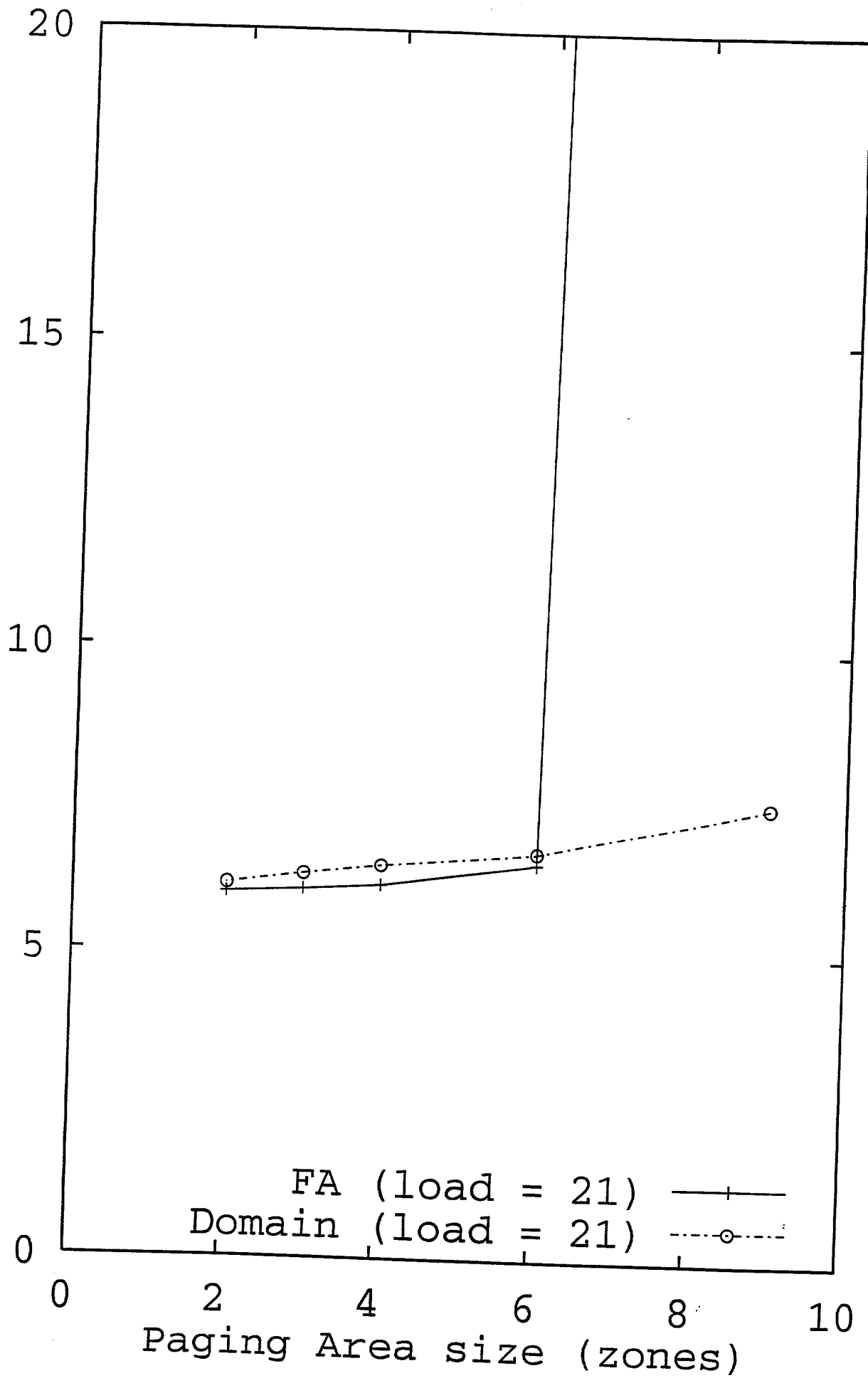


FIG. 8(a)

6

Average paging latency (ms)



FA (load = 21) — + —
Domain (load = 21) - - - o - - -

FIG. 3(d)

(72)

Average paging latency (ms)

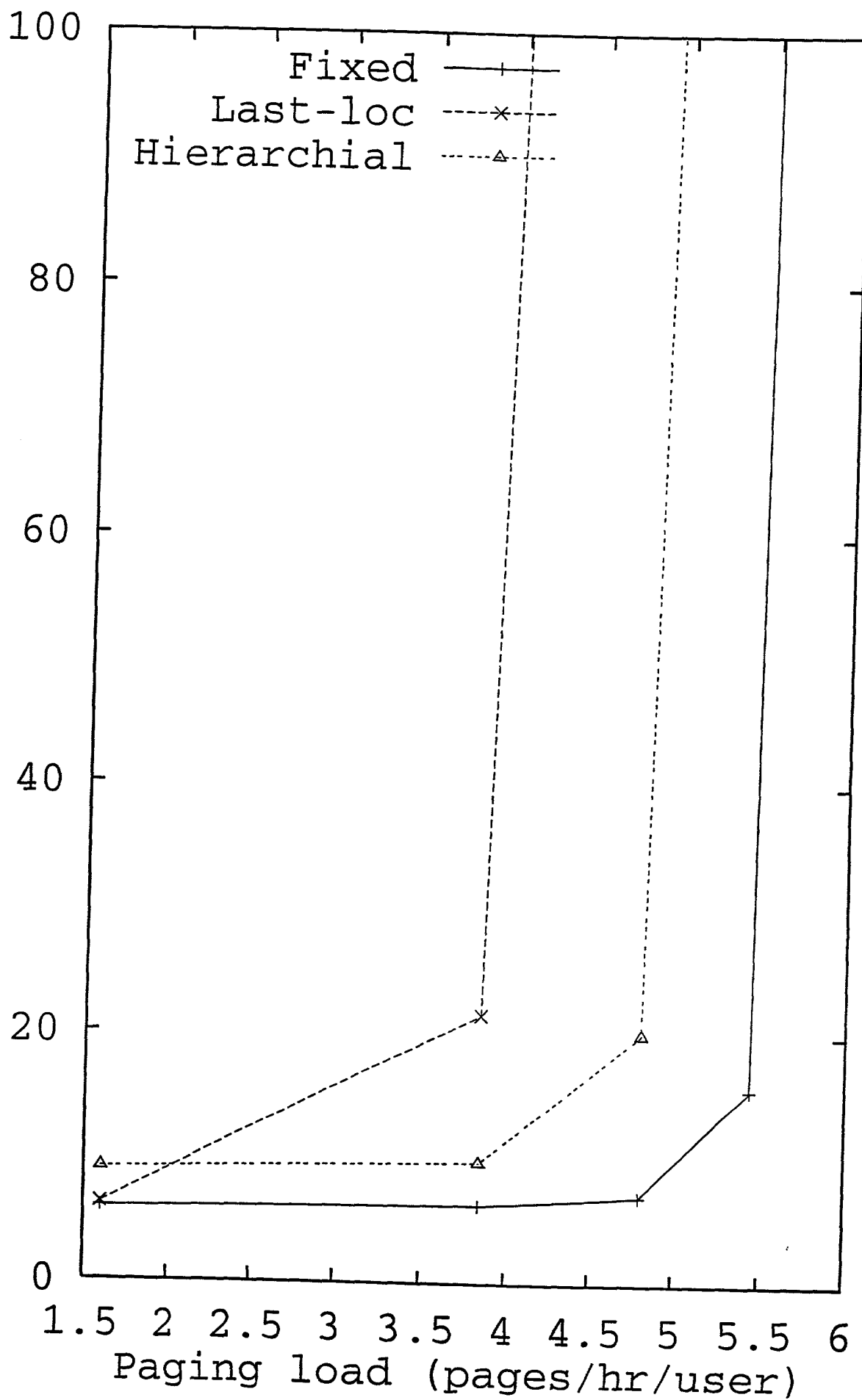


FIG. 9(a)

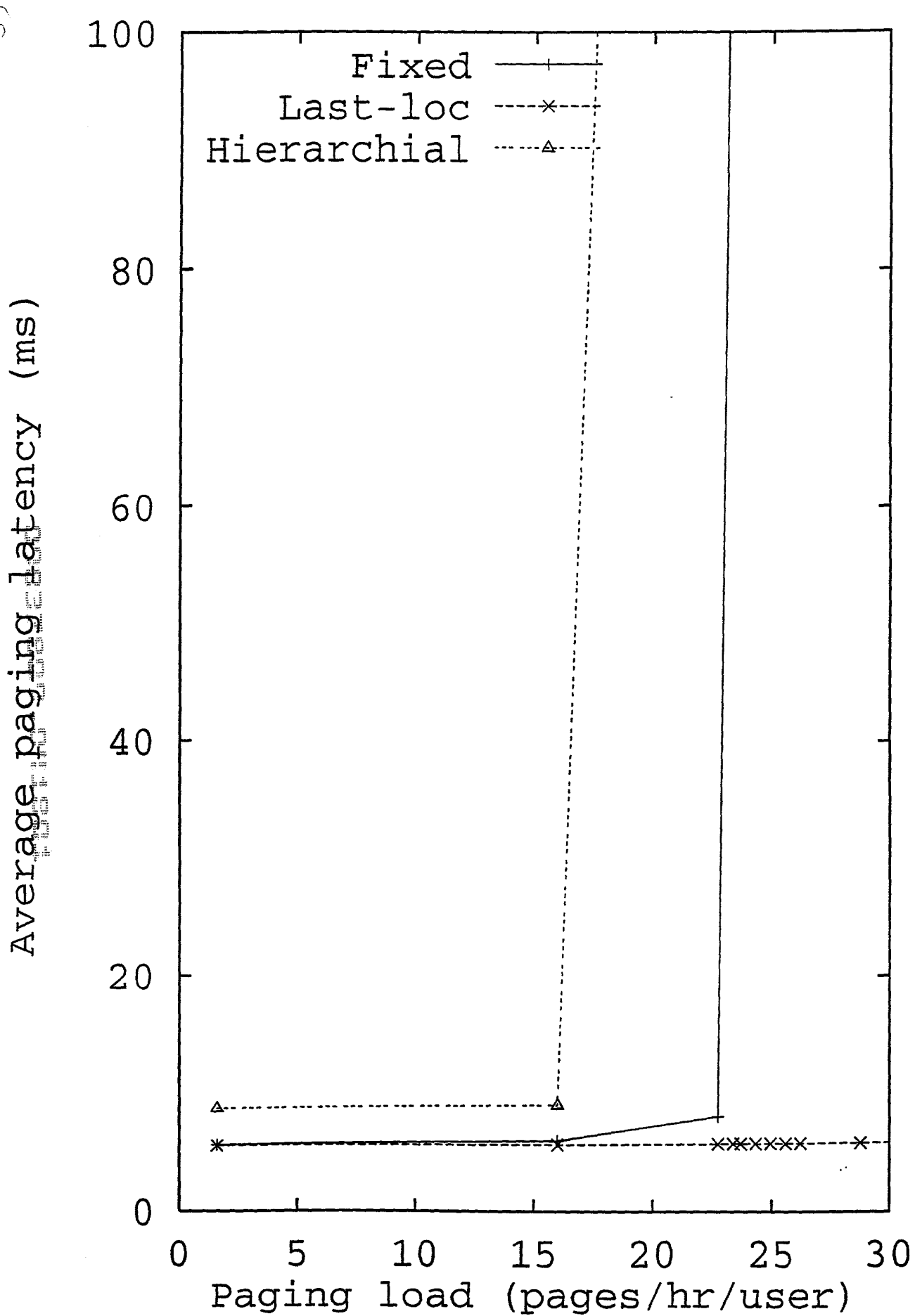


FIG. 9(b)

176

Average paging latency (ms)

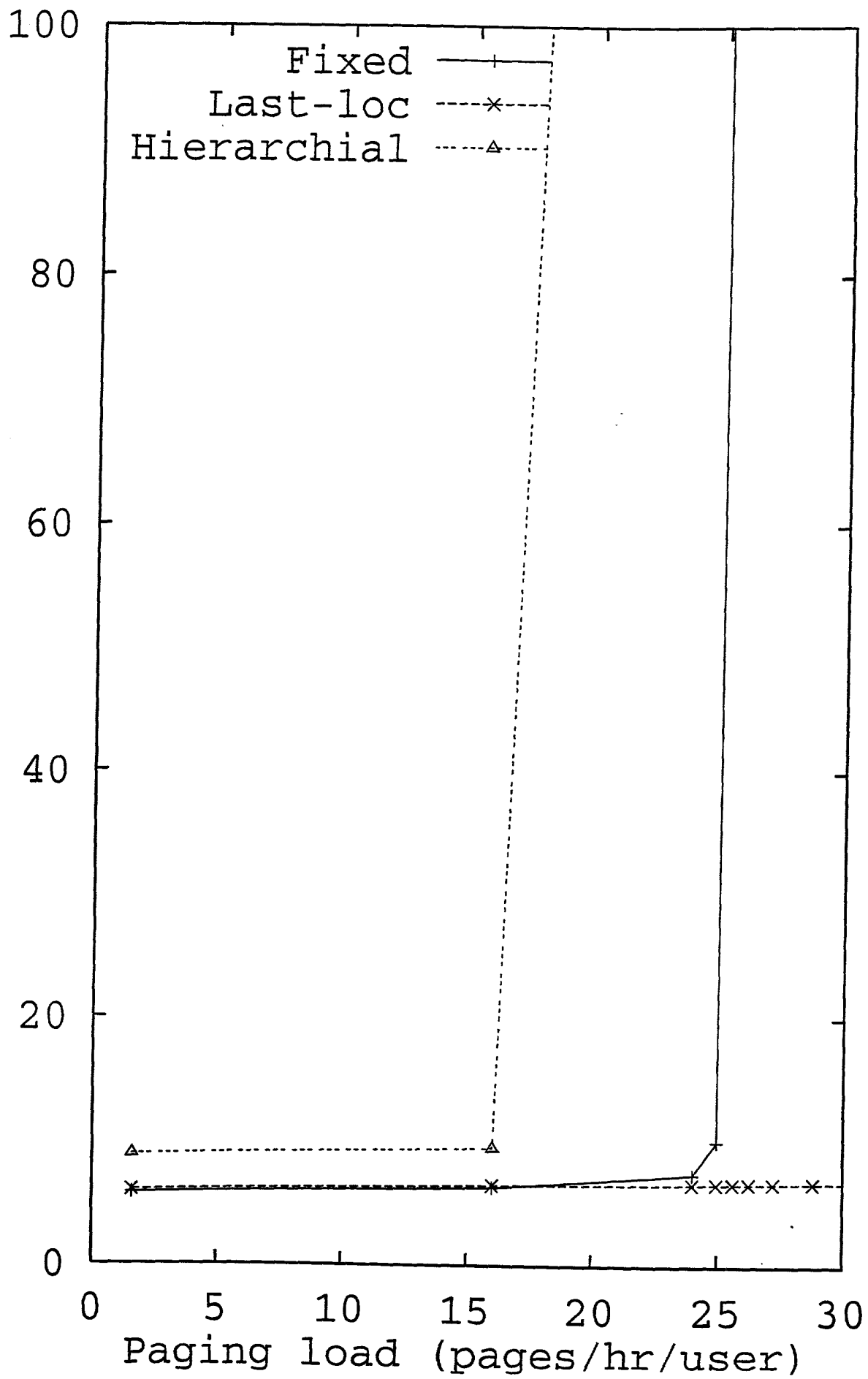


FIG. 9(c)

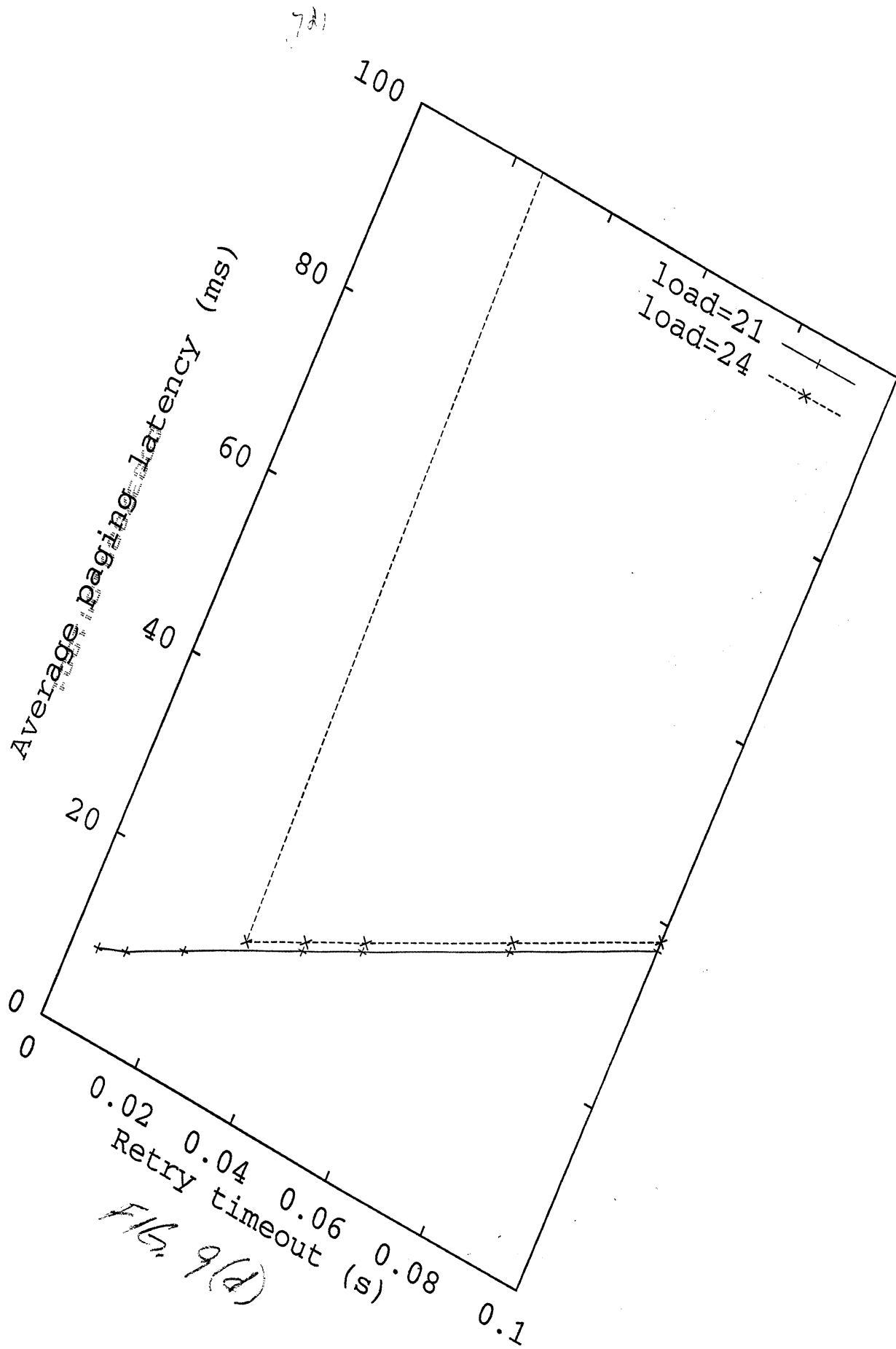


FIG. 9(d)

(69)

Unavailability

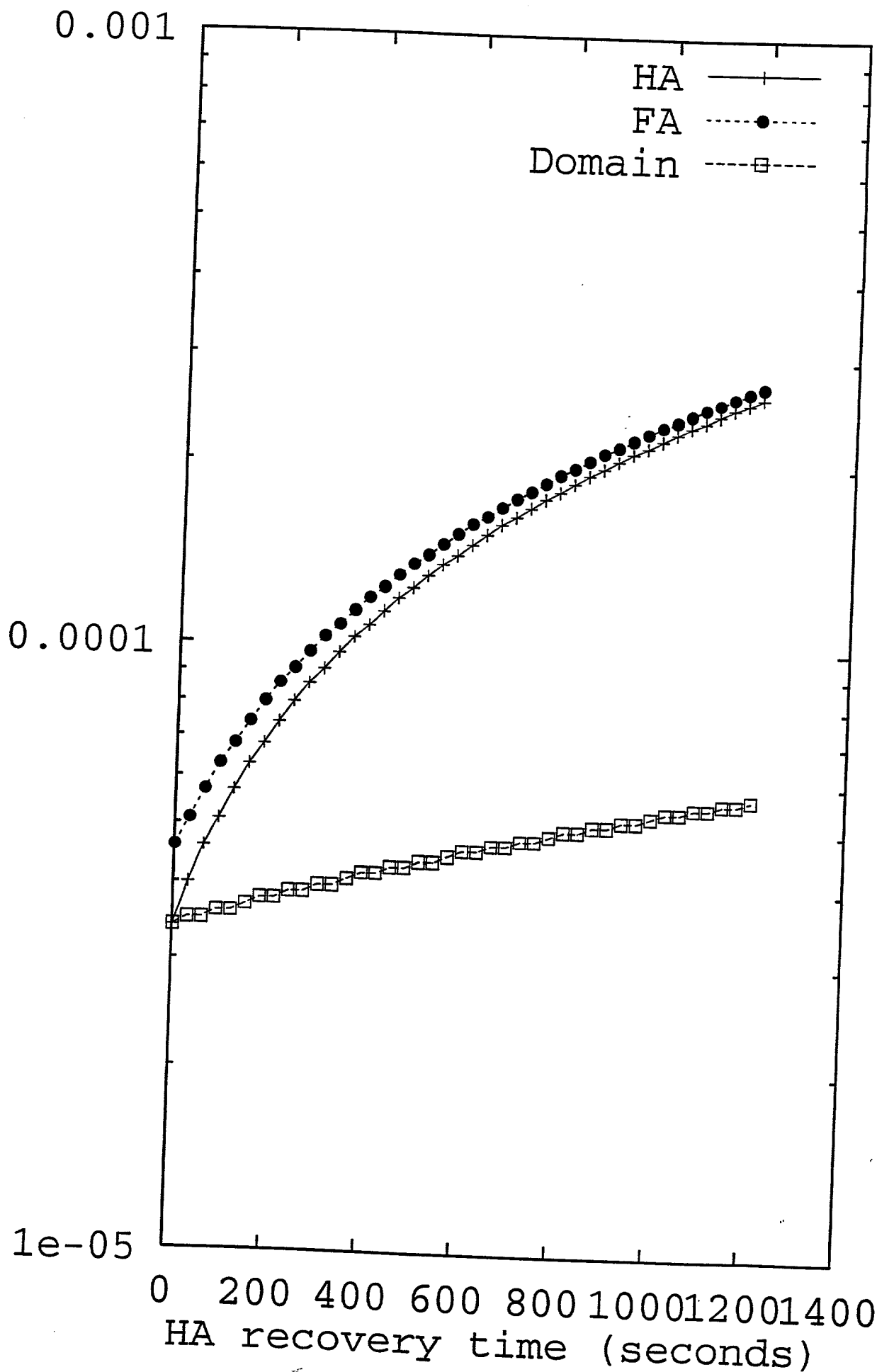


FIG. 10(a)

Unavailability

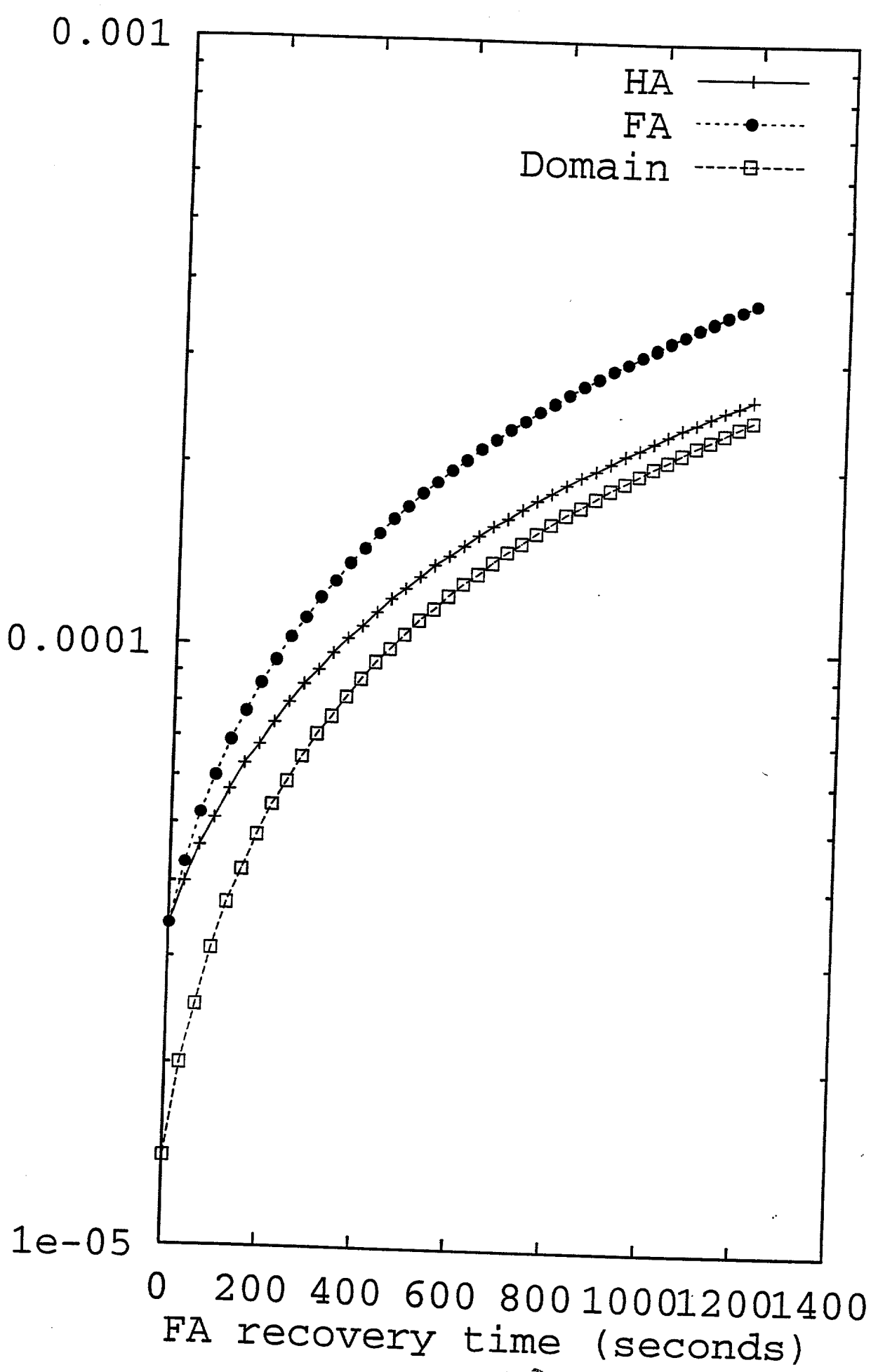


FIG. 10(b)

FIG. 11

ROUTER PROCESSING FOR A GIVEN MOBILE HOST

Routing entry	Paging entry	Host state	Router action
Y	Y/N	Active	Regular IP forwarding
N	Y	Standby	Paging processing
N	N	Null	Drop if no default route

FIG. 12

1. Receive protocol message from neighbor with (MH IP ADDRESS, MGA) on Port A
2. If I am the Domain Root Router
3. Set entry to (MH IP ADDRESS → MGA, Port A)
4. else
5. Set entry to (MH IP ADDRESS → MGA, Port A)
6. Forward to upstream neighbor along default route
7. endif

Paging update processing in base station/router

Fig 13

1. IP packet for MH arrives at node with entry (MH IP address \rightarrow MGA, Port A)
2. if (packet arrives from default route port or I am Domain root Router)
3. if ((no refresh on Port A) /* Failure */
4. or (page queue $< \beta$) /*lightly loaded?*/
5. or (I am a base station)) /* Initiate Paging */
6. buffer packet and send page to MGA
7. increase retry counter and set retry timer
8. else /* Push paging initiation downstream */
9. route the packet through Port A
10. endif
11. else
12. forward packet along default route to DRR
13. endif

Paging initiation in base station/router

FIG. 14

1. Receive protocol message with from neighbor
(MH IP ADDRESS, MGA) on Port A
2. If I am the paging initiator
3. Set entry to (MH IP ADDRESS → Port A)
4. Forward buffered packets
5. else
6. Set entry to (MH IP ADDRESS → Port A)
7. Forward response hop-by-hop towards initiator
8. endif

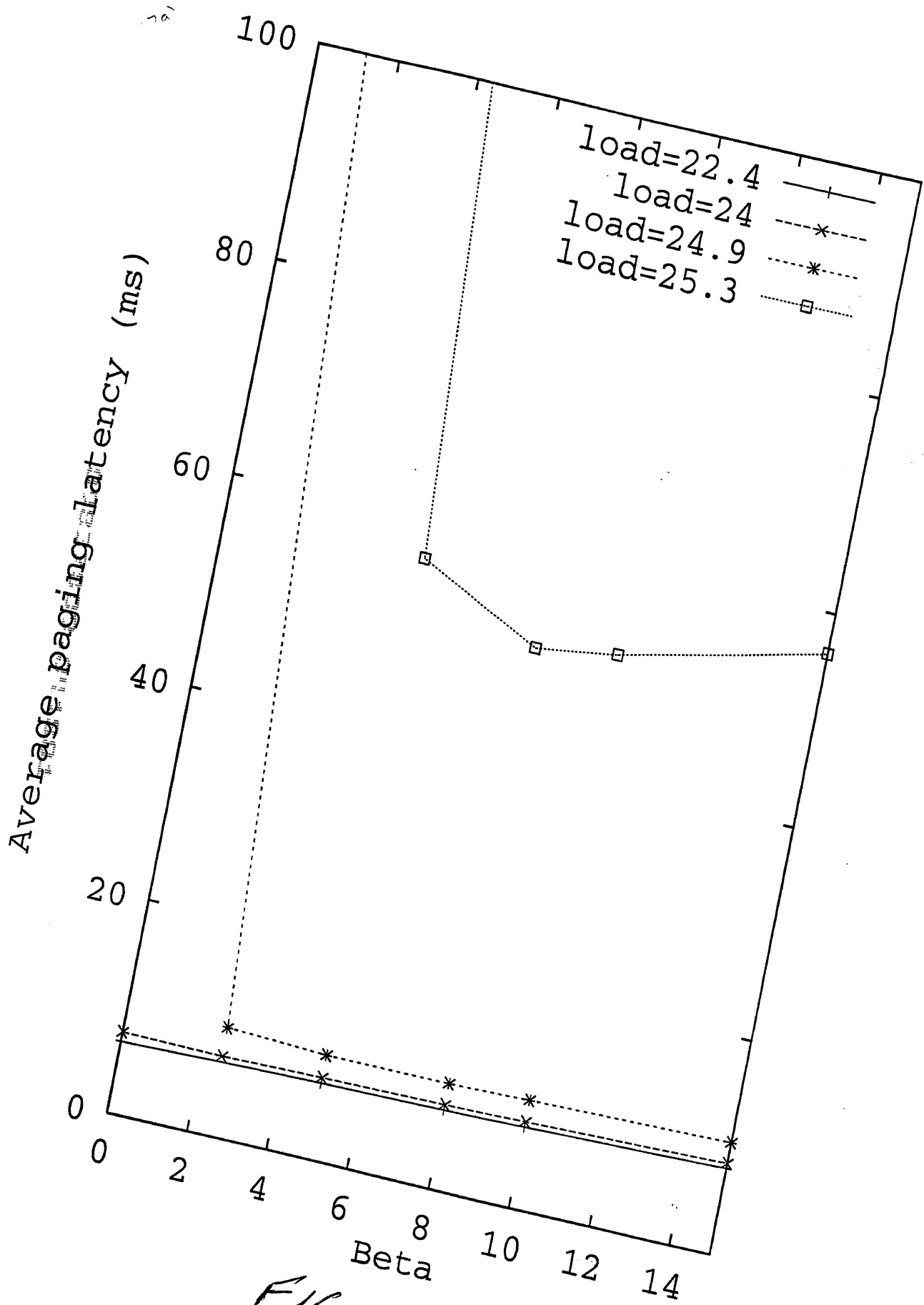


FIG. 15(e)

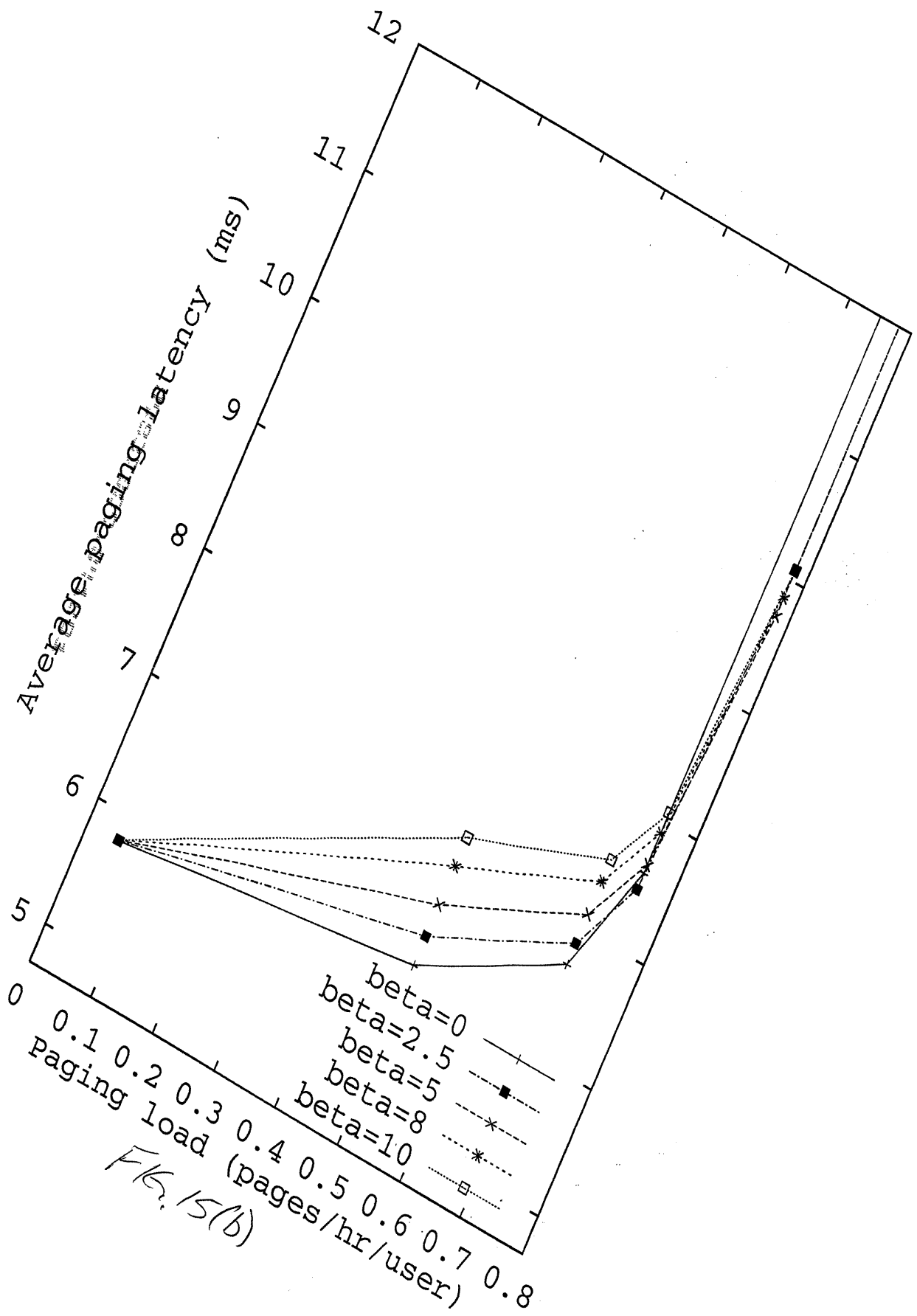


FIG. 15(b)